

REMARKS

This Amendment is in response to the Office Action mailed October 3, 2003. In the Office Action, claims 1-15, and 19-20 are rejected under 35 U.S.C. § 112; claims 1-2, 5-6, 8, 10-12, 14-17, and 19-20 are rejected under 35 U.S.C. § 102(e); and claims 7, 9, 13, 18 and 21 are rejected under 35 U.S.C. § 103(a). Claim 2 has been cancelled while claims 1, 3, 5, 8 and 20 have been amended. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Claim Objections

Rejection Under 35 U.S.C. § 112

Claims 1-15, and 19-20 are rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite. In particular, claims 1, 3, 8 and 20 have been revised to address the Examiner's concerns. With respect to claim 4, Applicant respectfully submits that an illustrative embodiment for rounding a floating point number is described on page 11, line 4 through page 13, line 6. Applicant respectfully requests the Examiner to reconsider this rejection upon analysis of the specification. With respect to claim 10, Applicant respectfully submits that the Examiner must be mistaken because the terms "processing circuit or a low-order block" and "processing circuit or a high-order block" are not utilized in claim 10.

In light of the foregoing, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-15, and 19-20 under 35 U.S.C. § 112, second paragraph.

Rejection Under 35 U.S.C. § 102(e)

Claims 1-2, 5-6, 8, 10-12, 14-17, and 19-20 are rejected under 35 U.S.C. §102(b) as being anticipated by Schmookler (U.S. Patent No. 6,178,435). As the Examiner is aware, in order to anticipate a claim under §102(b), Schmookler must teach every element of the claim. "A claim is anticipated *only if each and every element as set forth in the claim is found, either expressly or inherently described*, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (Emphasis added).

Applicant respectfully traverses the rejection and contends that a *prima facie* case of obviousness has not been established.

Herein, Schmookler teaches a method for performing a power of two estimation on a floating-point number. More specifically, the mantissa is partitioned into an integer part and a fraction part, based on the value of the exponent bits. The integer part is used as an unbiased exponent of the floating-point number and the fraction part is converted using a table lookup to recover a fraction part of the floating-point number. *See Abstract.*

In contrast to the §102(b) rejection on page 3 of the Office Action, Applicant has been unable to locate memory (21) or means (23) as set forth by Schmookler. In addition, means (11) does not constitute a rounding apparatus that accepts input value (X) that is a real number represented in floating-point format, and to compute a rounded value ($\lfloor X \rfloor_{\text{integer}}$) by rounding the input value (X) toward minus infinity, wherein the rounded value ($\lfloor X \rfloor_{\text{integer}}$) is represented in an integer format. Instead, means (11) is merely a single operation to separate the integer part of the mantissa from the fraction part.

In further contrast, means (14), which is the performance of a table lookup, does not constitute a second approximation apparatus as set forth in claim 6. The table lookup uses a fraction part (xF) as input to recover the fraction part of the mantissa of the resultant floating-point number.

In light of the foregoing, Applicant respectfully requests that the Examiner to reconsider and withdraw this outstanding §102(b) rejection of claims 1-2, 5-6, 8, 10-12, 14-17, and 19-20.

Rejection Under 35 U.S.C. § 103(a)

Claims 7, 13 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmookler. Moreover, Claims 9 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmookler in view of Abe (U.S. Patent No. 6,049,343). Applicant traverses the rejection because a *prima facie* case of obviousness has not been established. As denoted above, all limitations of the claims have not been evaluated. *See In re Fine, 873 F.2d 1071, 5*

U.S.P.Q.2d 1596 (Fed. Cir. 1988). As aptly stated by the Federal Circuit in *In re Evanega*, 829 F.2d 1110, 4 U.S.P.Q.2d 1249 (Fed. Cir. 1987), the "mere absence [from the reference] of an explicit requirement [of the claim] cannot reasonably be construed as an affirmative statement that [the requirement is in the reference]."

Applicant respectfully requests that the Examiner to reconsider and withdraw the rejection of claims 7, 9, 13, 18 and 21 under 35 U.S.C. § 103(a).

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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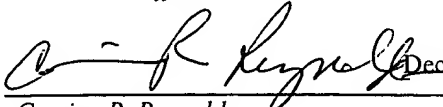
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